

decline with time, indicating a continuing impact on mental health throughout the pandemic.

Mental health in Swiss university students during the COVID-19 pandemic

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Background:

University students were confronted with abrupt changes by the COVID-19 lock-down in their personal and academic lives. The “Health in Students during the Corona pandemic” study investigated the impact on mental health and health behaviors of Swiss university students.

Methods:

April 2020 all students of the Zurich University of Applied Sciences (N = 12,431) were invited to a repeated cross-sectional open cohort survey, participation ranged from T0 20% - T5 13%. Generalized anxiety (GAD-7), stress (PSS) and depression (PHQ-9) were investigated with descriptive and multivariate analyses. Latent class analyses (LCA) was applied to identify groups who differed in perception of impact on daily and student life. PHQ-9 results were compared with pre-pandemic data matched for age, sex and education.

Results:

At T0 mean age was 26.5 (sd 5.6), 69% were female. Participants were similar across all surveys. LCA yielded three classes of perceived impact: 1 (low, n = 675), 2 (moderate, n = 1098), and 3 (strong, n = 656). At T0 adjusted proportion of moderate to severe anxiety was significantly higher in class 3 (45% (95% CI: 28.0-62.0), compared to 2 (15.5%, 95% CI: 13.1-17.9) and 1 (5.1%, 95% CI: 4.7-5.6). Class 3 showed significantly higher odds of high stress levels (class 3: OR = 28.4; 95% CI: 15.5 - 52.0; p = 0.000; class 2: OR = 2.8; 95% CI: 1.5 - 5.3; p = 0.002) compared to other students. Anxiety and stress levels declined with time. The adjusted prevalence of depressive symptoms in females (30.8% (95% CI: 28.6-33.0)) and males (24.8% (95% CI: 21.7-28.1)) was substantially higher than in a matching pre-pandemic national sample of young women (10.9% (95% CI: 8.9-13.2)) and men (8.5% (6.6-11.0)). Depressive symptoms between T0 and T3 did not decline.

Conclusions:

Students reported high anxiety, stress and depressive symptoms during the pandemic. Depressive symptoms did not